



MISSOURI TIMBER PRICE TRENDS

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Missouri Department of Conservation, Forestry Division

Statewide Stumpage Prices

	High	Low	Avg.	Last Qtr.	Last Yr.	Vol.	# of Rpts.
Veneer							
Walnut, Black	\$2,585	\$1,000	\$2,405	\$1,600	\$2,665	30 Int. - MBF	5
White oak (group)	\$835	\$725	\$765	-	-	11 Int. - MBF	2
Sawlogs							
Cottonwood	\$60	\$40	\$50	-	-	120 Int. - MBF	2
Hickory	\$185	\$120	\$150	\$70	\$70	9 Int. - MBF	3
Mixed Hardwoods	\$190	\$40	\$105	\$75	\$25	830 Int. - MBF	12
Oak (mixed species)	\$235	\$40	\$135	\$125	\$145	652 Int. - MBF	9
Post Oak	\$120	\$50	\$55	\$100	\$120	17 Int. - MBF	2
Red oak (group)	\$265	\$60	\$85	\$140	\$135	1,544 Int. - MBF	9
Shortleaf Pine	\$120	\$120	\$120	\$55	\$45	5 Int. - MBF	1
Soft Maple	\$60	\$40	\$50	\$250	-	120 Int. - MBF	2
Walnut, Black	\$1,040	\$335	\$755	\$645	\$755	49 Int. - MBF	7
White oak (group)	\$350	\$50	\$160	\$120	\$145	1,220 Int. - MBF	14
Stave Logs							
White oak (group)	\$415	\$415	\$415	-	\$90	16 Int. - MBF	1

North Stumpage Prices

	High	Low	Avg.	Last Qtr.	Last Yr.	Vol.	# of Rpts.
Veneer							
Walnut, Black	\$2,335	\$2,335	\$2,335	\$1,600	-	1 Int. - MBF	1
Sawlogs							
Cottonwood	\$60	\$40	\$50	-	-	120 Int. - MBF	2
Mixed Hardwoods	\$40	\$40	\$40	\$75	\$15	270 Int. - MBF	2
Oak (mixed species)	\$40	\$40	\$40	-	\$50	12 Int. - MBF	1
Red oak (group)	\$60	\$60	\$60	-	-	720 Int. - MBF	1
Soft Maple	\$60	\$40	\$50	\$250	-	120 Int. - MBF	2
Walnut, Black	\$665	\$665	\$665	\$680	\$375	1 Int. - MBF	1

Central Stumpage Prices

	High	Low	Avg.	Last Qtr.	Last Yr.	Vol.	# of Rpts.
Veneer							
Walnut, Black	\$2,290	\$1,000	\$1,530	-	\$2,665	4 Int. - MBF	2
White oak (group)	\$835	\$835	\$835	-	-	4 Int. - MBF	1
Sawlogs							
Mixed Hardwoods	\$70	\$50	\$55	-	\$40	216 Int. - MBF	6
Oak (mixed species)	\$120	\$50	\$115	-	-	346 Int. - MBF	2
Post Oak	\$50	\$50	\$50	-	-	16 Int. - MBF	1
Red oak (group)	\$120	\$75	\$95	-	\$90	574 Int. - MBF	5
Walnut, Black	\$600	\$335	\$440	-	\$765	21 Int. - MBF	4
White oak (group)	\$350	\$120	\$165	-	\$250	960 Int. - MBF	7
Stave Logs							
White oak (group)	\$415	\$415	\$415	-	-	16 Int. - MBF	1

Southwest Stumpage Prices

	High	Low	Avg.	Last Qtr.	Last Yr.	Vol.	# of Rpts.
Veneer							
Walnut, Black	\$2,585	\$2,585	\$2,585	-	-	24 Int. - MBF	1
Sawlogs							
Oak (mixed species)	\$220	\$180	\$205	-	\$165	136 Int. - MBF	3
Walnut, Black	\$1,040	\$1,040	\$1,040	\$500	\$815	24 Int. - MBF	1
White oak (group)	\$100	\$50	\$60	-	\$290	96 Int. - MBF	2

Southeast Stumpage Prices

	High	Low	Avg.	Last Qtr.	Last Yr.	Vol.	# of Rpts.
Veneer							
Walnut, Black	\$1,110	\$1,110	\$1,110	-	-	- Int. - MBF	1
White oak (group)	\$725	\$725	\$725	-	-	7 Int. - MBF	1
Sawlogs							
Hickory	\$185	\$120	\$150	\$70	\$70	9 Int. - MBF	3
Mixed Hardwoods	\$190	\$50	\$190	\$60	\$50	344 Int. - MBF	4
Oak (mixed species)	\$235	\$100	\$135	\$125	\$150	158 Int. - MBF	3
Post Oak	\$120	\$120	\$120	\$100	\$120	1 Int. - MBF	1
Red oak (group)	\$265	\$110	\$130	\$140	\$140	251 Int. - MBF	3
Shortleaf Pine	\$120	\$120	\$120	\$55	\$45	5 Int. - MBF	1
Walnut, Black	\$665	\$665	\$665	-	-	2 Int. - MBF	1
White oak (group)	\$315	\$120	\$180	\$120	\$130	164 Int. - MBF	5

Averages are based on received reports. Refer to the column headed “# of Rpts.” to get a gauge of how accurate the average prices may be. (“# of Rpts.” refers to the number of sales including a particular species and may sum to more than the number of sales.) Changes since last quarter and last year should be read with caution as the number of reports varies each year and quarter. This report can only be used as a general guide for determining market value of timber. General market and economic conditions, as well as local considerations such as accessibility, terrain, sale size, and tree size and quality also affect the price paid.

Please see the map on page 7 for a definition of reporting regions.

Note: All prices and volumes are reported in International ¼” MBF Scale. To convert to Int.-BF prices or volume, divide by 1,000. To convert volume from Int.-MBF to Doyle MBF, divide by 1.2. To convert prices from Int.-MBF to Doyle MBF, multiply by 1.2.

Foresters reported stumpage prices resulting from 31 timber sales containing 6,007 MBF located throughout the state.

Editor's Note

Remember that one of the most valuable sources for information on log and timber markets is the local Missouri Department of Conservation Resource Forester or your Consulting Forester. Contact the nearest Forest District office for up-to-date, local advice. The Missouri Department of Conservation's Forestry Division, (573) 751-4115, will be happy to provide you with the name and address of the Resource Forester or MDC Regional Office nearest to you. You can locate a Consulting Forester by visiting the Mo. Consulting Forester's Association web site at: www.missouriforesters.com or by visiting the Private Land Assistance page of the MDC website <http://mdc.mo.gov/landown/> and clicking on the "Conservation Assistance Contractors" link.

Tom Treiman and Jason Jensen, Editors

Note: A "sale" often includes several different species so the number of sales may be less than the "# of Rpts." (number of reports) listed in the tables.

Tree Scale Conversion Factors

Sawlogs - Veneer Logs	Int'l = Doyle x 1.2
Pulpwood Pine	5,200 lbs/cord
Hardwood (hard)	5,600 lbs/cord
Hardwood (soft)	4,200 lbs/cord

Note: All prices and volumes are reported in International 1/4" MBF Scale. To convert to Int.-BF prices or volume, divide by 1,000. To convert volume from Int.-MBF to Doyle MBF, divide by 1.2. To convert prices from Int.-MBF to Doyle MBF, multiply by 1.2.

The Forest Futures Project

The Northern Forest Futures Project (NFFP) is a window on tomorrow's forests, revealing how today's trends and choices can change the future landscape of the Northeast and Midwest. Using the latest inventory data and scientific projections collected by the United States Forest Service (USFS), the Missouri Department of Conservation, other states and cooperating universities, the NFFP helps visualize what's here today and what to expect tomorrow. Ultimately, this project informs decision-making about the sustainable management of public and private forests in the northern United States.

Any projection of future forest conditions needs an assessment of current forest conditions as a basis for comparison. This section describes current forest conditions and trends for the 20 Northern States through selected characteristics associated with forest sustainability. The chosen characteristics come from the internationally recognized Montréal Process Working Group on Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests, a set of 64 indicators within seven broad criteria for sustainability. To these, the USFS has added an eighth criterion focused on the urban and community forests in the northern United States.

The NFFP seeks to focus on the topics of concern to people connected with northern forests. The USFS has tried to gain an understanding of the issues through a "scoping effort" that embraces many sources of input and viewpoints. Issues and influences such as wildlife habitat and biodiversity, forest area, species composition, and size structure, water, recreation, biomass & bioenergy, stood out in the review of what people were saying about the forces that are influencing the Northern Forests.

The future condition of northern forests will depend on many variables. It is impossible to consider every possible future, and so NFFP efforts focus on developing projections from a set of possible future scenarios. Projecting future forest composition and structure under a range of scenarios provides a better basis for judging whether management plans are reasonable and sustainable.

Specifically, the NFFP scenarios assume the following future trends: (1) high economic growth, moderate population growth, (2) moderate economic growth, high population growth and (3) low economic growth, low population growth. For each scenario, forecasts of land uses and forest conditions for the region are completed at a fine spatial resolution covering a 50-year time span.

Preliminary results for Missouri are available from the USFS at:

http://nrs.fs.fed.us/futures/current_conditions/states/?state=MO

and a general overview can be found at:

<http://nrs.fs.fed.us/pubs/40189>

U.S. Economy Recovering Slowly, Forecast Predicts Trend to Continue

Economic Outlook: Despite talk of an ongoing recovery, many analysts expect to see only small improvements throughout 2012.

By DeAnna Stephens Baker
Date Posted: 4/1/2012

Analysts have spent the beginning of 2012 looking at trends and data from previous years, trying to predict how the economy will perform throughout the rest of this year. Like most industries, the pallet and wood products markets have some bright spots on the horizon, yet many unknowns exist as well.

While there are several ideas on how the specifics of the global economic situation will play out through the rest of the year, most analysts agree that there will be some improvements although these will be limited and slow throughout 2012.

U.S. Economic Growth

The overall U.S. economy is expected to grow only slightly faster in 2012 than it did last year. The highest projections place economic growth at 3%.

But most keep it down closer to the 2 to 2.3% growth forecasted by The Kiplinger Letter, which is not fast enough to significantly lower the unemployment rate.

“Unfortunately, growth isn’t accelerating as it normally does in a recovery,” Kiplinger reported. “The economy grew at an annual rate of 3% in the last quarter of 2011, but the pace will slow again early in 2012 and pick up only slightly by the end of the year. A sustained recovery still is not under way, more than two years after the end of the Great Recession.”

Despite many analysts saying that a long-term recovery is not yet in the works, there is still a lot of optimistic talk of a recovery.

“Currently, there is an upbeat mood in the media about ‘recovery,’” said Chuck Ray, associate professor of wood operations at Pennsylvania State University. “But optimism seems to be based on higher numbers in retail spending and the stock market, not on durable goods.”

The Congressional Budget Office (CBO) forecast that the economy will continue to recover slowly, with real GDP growing by 2% this year and 1% next year, partly due to higher tax rates and scheduled spending curbs. The CBO also stated that it “expects economic activity to quicken after 2013 but to remain below the economies potential until 2018.” As a result of continued weakness in demand for goods and services, the CBO predicted that the unemployment rate will remain above 8% through 2013.

“As economic growth picks up after 2013, the unemployment rate will gradually decline to around 7% by the end of 2015, before dropping to near 5.5% by the end of 2017,” the CBO’s forecast estimated.

Some analysts have been a bit more hopeful in their projections, with predictions of the unemployment rate dropping as low as 6.5% by the end of next year. However, most seem to expect it to remain closer to the 8% mark until 2014 at the earliest.

Global Issues

Unfortunately, the United States is not the only economy trying to recover. Ray described the world economies and industries as being “in consolidation mode, as governments struggle to prop each other up.” And the U.S. economy is in a tenuous position, with little to cushion it from any of the many potential shocks. Kiplinger’s analysts warn that war, an oil price spike, terrorism or a natural disaster could all easily send the U.S. into another recession.

Several ongoing issues around the globe will also have an impact on the U.S. economy, either positive or negative, depending on how they play out. The debt crisis in Europe has already slowed U.S. exports to the region. Europe appears to be heading into another mild recession this year. Some analysts are concerned that it could start causing larger financial problems for the United States.

“While strains in financial markets have been limited to European institutions so far, we must continue to monitor events to ensure that there are no adverse spillovers to U.S. financial institutions,” said Charles Plosser, president and CEO of the Philadelphia Federal Reserve. “Of course, regardless of how the European situation plays out, it has already imposed considerable uncertainty on growth prospects for the global economy. Moreover, our own nation’s inability to establish a clear plan to put our fiscal house in order contributes additional uncertainty to the economic landscape.”

In China, the economy is struggling as the real estate bubble has burst, inflationary pressures are mounting and the credit crisis is rising. What happens in China is of greater importance than ever due to the amount of logs and lumber exported there last year from the United States, especially West Coast mills and logging operations. During 2011, China became the world’s largest importer of logs and lumber, and the largest importer of logs and lumber from the West Coast. U.S. log exports to China totaled 46% of all U.S. log exports in 2011. Lumber exports were 30% of the total U.S. lumber exports for the year. Surging demand from China has helped maintain the North American timber industry throughout 2011 as the domestic housing market continued to flounder.

Some, such as Marshall Thomas, president of F&W Forestry Services, Inc., a forest

resource management and consulting firm, believe that log and lumber exports to China and other Far Eastern countries may even help boost the southern pine industry. Thomas believes U.S. East Coast ports, especially those in the Southeast that have immediate access to the southern pine belt, will likely share in the Far East export surge when expansion of the Panama Canal is completed in 2014, making those ports accessible to the super large container ships soon to travel global ocean trade routes.

And despite the decline in log and lumber imports seen this past fall, due to a high inventory in the country and an attempt by the Chinese government to control inflation by limiting the amount of money available for the real estate sector, many believe that China's economy is still growing, simply at a slowing rate. However, there is still some concern over the future reliability of the demand.

"The volatility is adding a new element of uncertainty to the wood products industry, and raising questions over whether the country will be a dependable customer," said Bruce Glass, forest economist with the Campbell Group.

There has also been concern that Russia may try to take back its former position as the top exporter of logs to China, which it has lost since its 2008 implementation of a log export tariff of 25%. Russia's log export tariffs are set to be reduced as the country becomes a member of the World Trade Organization (WTO). However, Russia taking back its top spot

in China is not likely to happen, according to the Wood Resource Quarterly (WRQ), which stated the proposed new lower tariffs are not expected to increase Russian export volumes to pre-tariff levels.

"It is not likely that foreign log buyers will rush back to Russia to purchase higher log volumes in the coming years since the business climate in the country continues to be challenging in terms of political uncertainty, continued corruption, increasing domestic log costs and infrastructure problems," explained WRQ. "This uncertainty makes many forest companies wary about investing or trading with Russia, so they will likely try to diversify their timber sourcing further to include other regions."

Housing Market

Projections for the housing market are a mixed bag. Some analysts are slightly more hopeful than many others. Yet many experts do not think that a meaningful housing recovery will appear for several more years.

Delton Alderman, a researcher at the Forest Service's Forestry Sciences Laboratory, and Urs Buehlmann, a professor with the Department of Sustainable Biomaterials at Virginia Tech, said that new housing starts are showing signs of life, but that there is still a long way to go.

Housing starts saw only a small increase in January, driven by multi-family starts which are still volatile. Single-family starts actually decreased

from December to January, to a total of 508,000 starts, lower than the December estimate of 513,000. This was an increase of 16.2% from January 2011. But unfortunately this is not enough of an increase to keep it from being the fourth consecutive year of historically low housing start levels. This indicates that there is still no relief in sight from the housing market for hardwood and softwood sales.

Alderman and Buehlmann characterized existing home sales as still "muddling along." On the positive side, they said the quantity of available existing homes is declining, and is at its lowest number since 2005. However, they also noted that existing home prices are still declining year-over-year and that private investors are the main purchasers of foreclosures, and existing and new home sales.

Deterrents to a real housing recovery include increasing federal and personal debt, student loan debt and of course the multiple global financial issues. However, Alderman and Buehlmann suggested that the most important factor is the job market.

"Until there is a substantial recovery in job creation and calling laid-off employees back to work, housing probably will remain in the doldrums," they said.

The National Association of Home Builders (NAHB) has been more positive in its outlook on the housing market. Barry Rutenberg, NAHB chairman noted that outside of the upwardly revised December numbers, January's sales pace

was the best seen since April of 2010, when the home buyer tax credit was in effect.

“Moreover, many recent indicators – from our builder confidence surveys to housing starts and permits data and the expanding list of improving local markets– have provided evidence that consumers are becoming more confident about making a home purchase,” said Rutenberg.

NAHB’s chief economist David Crowe said that January’s new-home sales, which were up 3.5% from the same time last year, and up one percent from the fourth quarter average for 2011 were “indicative of the incremental, steady progress that the market is making toward recovery in conjunction with modest economic and job growth. Increasingly, potential buyers are feeling better about their financial situation and their ability to buy a home, but the challenges posed by tight credit conditions and appraisal issues continue to slow that process.”

Looking further ahead, Plosser of the Philadelphia Federal Reserve, warns that even when the economy stabilizes, we should not expect the housing and related sectors to return to their pre-recession highs. “Those highs were unsustainable, and the housing crash that ensued destroyed a great deal of wealth for consumers and the economy as a whole,” he said.

Unfortunately, all of this means that the forest products industry will still be in a “wait and see” mode during the coming months. Right now, the economy is recovering, but at a

much slower pace than hoped for. Though the housing market is still stuck in low gear, Chinese and other international demand is expected to keep the industry afloat for now.

“Canadian and U.S. timber and lumber prices are continuing to be propped up by Chinese demand,” said Ray. “Barring ‘seismic’ events, lumber prices will remain fairly stable.”

As long as nothing catastrophic happens, such as inflation causing the Chinese economy to flatten, a collapse of European banks, an oil price spike, or a natural disaster, the U.S. forest products industry should pull through 2012.

How A Dumb Law Blocks A Great Way To Fuel America

Chrisopher Helman, Forbes

This year American motorists will burn through 14 billion gallons of ethanol, the end product of 5 billion bushels of corn—a third of the U.S. crop—grown on 33 million acres of farmland. It arguably cuts pollution coming out of U.S. tailpipes, but at a huge cost. Since 2005, when Congress required that ethanol be added to your gas tank, U.S. corn prices have tripled.

Steven Sterin thinks he has a better way. As president of the advanced fuels division at Dallas-based chemicals company Celanese, he’s supervising construction of two new plants—one in Texas, the other in China—to make

ethanol. But you won’t see any vats fermenting corn here. Celanese makes its ethanol by tearing apart and recombining the hydrocarbons found in plentiful natural gas or coal. “We have the best gas-to-liquids and coal-to-liquids technology in the world,” he says. If it works, what Sterin is building will revolutionize the fuel industry. But that’s a very big if.

The problem isn’t science. It’s Washington. Thanks to the 2007 Renewable Fuel Standard law, gasoline refiners are mandated to blend so much plant-based or renewable ethanol into the gas supply that it prevents Celanese or any other fossil-fuel-based ethanol from even competing for the market. Though the RFS caps the blending of corn ethanol at 15 billion gallons a year, it calls for total biofuels blending to grow to 36 billion gallons a year by 2022.

Cellulosic ethanol is supposed to make up most of the difference. Maybe you recall President George W. Bush’s 2006 State of the Union address, in which he declared his goal that cellulosic ethanol made from “wood chips and stalks or switchgrass” would be “practical and competitive within six years.” RFS mandated 100 million gallons of cellulosic for 2010, 250 million for 2011 and 500 million this year.

But that hasn’t happened, even though the feds under both Bush and [Barack Obama](#) pumped \$1.5 billion in grants and loan guarantees into upstart cellulosic producers. Most, like Range Fuels, [Cello Energy](#) and

E3 BioFuels, have ended up bankrupt. Survivors like Abengoa Bioenergy produced fewer than 6 million gallons last year.

Amazingly, gasoline refiners are still on the hook. For failing to blend into their mix the mandated quantities of a fuel that does not exist, the refiners have gotten a \$10 million bill from the Environmental Protection Agency to pay for their so-called waiver credits. They're appealing.

The corn-dominated ethanol lobby is conflicted about making ethanol out of fossil fuels. On one hand, corn growers don't want competition from cheap gas. On the other, it's in the national interest to cut oil imports. "We're supportive of expanding all renewables and all alternative fuels," says Matt Hartwig, spokesman for the Renewable Fuels Association. Says Joe Cannon, president of the Fuel Freedom Foundation: "We need every option. There are 2 billion people moving from bicycles to mopeds to cars, and that's just in India and China."

Thirteen congressmen led by Pete Olson, whose district around Houston, Tex. encompasses dozens of chemical plants, including Celanese, have introduced a bill to add natgas-derived fuels to the RFS. Any change would face attack from the greens but is supported by animal farmers who want cheaper feed corn. "We would prefer not to have the RFS at all," says a spokeswoman for Olson, "but this is a step in the right direction."

How did Celanese get into this business? For 30 years it has been perfecting the process of making acetic acid—more commonly known as vinegar—a chemical feedstock for plastics like vinyl acetate. The company makes a quarter of the world's supply at giant complexes like those in Nanjing, China and Clear Lake, Tex. The building blocks for these chemicals are cheap natural gas (Texas) and plentiful coal (China). Using steam and catalysts like nickel, Celanese breaks apart the hydrocarbons in these feedstocks and reforms them into acetic acid. When coal is used, the gasification process captures bad stuff like mercury and cadmium.

Vinegar and ethanol are closely related. Ethanol is the stuff in a bottle of wine that gets you drunk; vinegar is what the ethanol turns into when you leave the bottle undrunk for too long. Air oxidizes ethanol into vinegar by pulling off its hydrogen atoms. In simplest terms, what Celanese does is reverse the process, taking the acetic acid components it already makes and using metal-based catalysts to add hydrogen to it to form high-purity ethanol. Finding the right catalysts was the real breakthrough.

And while using fossil fuels means emitting carbon dioxide, it's not clear that corn ethanol is more carbon-friendly. A 2010 study by researchers at Rice University found no reason to believe that the process of planting, tending, harvesting and processing corn into ethanol emits less carbon dioxide than does gasoline.

Sterin figures Celanese can make ethanol for a cash cost of only \$1.50 a gallon. Capital costs, starting with \$200 million for the two new plants, will add some 25 cents a gallon. While the diluted ethanol that's blended into gasoline sells for \$2.30 a gallon today, the concentrated industrial ethanol that Celanese will make goes for closer to \$3. That paves the way for big profits selling to makers of paints, pharmaceuticals and textiles, says Hassan Ahmed, analyst with Alembic Global Advisors. He expects Celanese to be making 300 million gallons a year by 2016, building a \$1 billion business with net income of \$250 million. Last year it earned \$600 million on \$6.8 billion in revenues.

What if Washington doesn't get aboard? No matter, says Sterin. China sees ethanol as a vital fuel, but with so many mouths to feed it can't waste farmland growing it. Celanese initially planned to build a 60-million-gallon-per-year ethanol addition at its Nanjing complex, but when Beijing issued final permits in March it was for an 80-million-gallon plant. (The Texas plant, in contrast, will do fewer than 6 million gallons.) Even so, he's hoping politicians will at least give Celanese a shot at competing in America. "We don't need subsidies," says Sterin. "We're ready to go."

Cellulosic Ethanol: The Fuel of the Future?

**Second-gen biofuel companies
could be on a rising tide**

Mar 29, 2012, 11:08 am
EDT | By [Aaron Levitt](#),
InvestorPlace Contributor

As oil prices continue to rise, so has the cost to fill up our tanks. According to AAA, the [average price for a gallon of gas hit \\$3.90](#) on Wednesday — the 19th consecutive day it has risen. While there are myriad factors that go into what we pay at the pump, the underlying point is that it still hurts our wallets.

However, some pricing relief might be on the horizon. Escalating petroleum prices have once again led to renewed interest in biofuels. While traditional corn and sugarcane ethanol have provoked an intense backlash from both policymakers and the public, second-generation biofuels made from plant wastes or non-food crops, known as cellulosic ethanol, are beginning to gain acceptance. While it will be some time before we fill our tanks with wood chips, recent activity in the sector is certainly indicative of bullish news.

For investors with a long-term timeline and some risk capital to play with, the cellulosic ethanol sector could be an interesting speculation.

Yard Waste & Scraps For Fuel

Nothing in the alternative and renewable sector creates such a debate as corn ethanol. However, as the impassioned battle continues to rage about whether carbon emissions from ethanol production are actually lower than those from oil — or whether the 33% of the U.S.

corn crop used in ethanol production actually drives up food prices — second-generation biofuel companies are hard at work.

At its core, advanced biofuels are those that do not rely on the corn kernel starch to make sugar-based or alcohol fuels. Cellulosic ethanol producers hope to create energy from plant material such as switch grass, forest waste and wood chips. The tricky part stems from converting cellulose from feedstocks of faster-growing trees like bamboo, into usable sugars. Once these sugars are produced, they can be converted to standard ethanol using conventional processes.

There certainly is plenty of incentive to do so. First, feedstock costs are next to nil. By using wheat straw, sugarcane bagasse (the cellulose-rich waste from cane processing), yard trimmings or even trash itself, these companies hope to overcome one of the major hurdles of corn-based ethanol: competition for food.

One of the major criticisms of corn-based ethanol is that federal mandates for blending have been driving up food costs. Famed value investor Jeremy Grantham has calculated that ethanol demand [increases the global price of a bushel of corn by 20%](#). This seems to echo similar [findings by Texas A&M researchers](#). A university study also traced an increase in corn and grain prices to ethanol production. By using waste, cellulosic producers hope to avoid this issue altogether.

The second strike against corn-based ethanol is shipping costs. Several second-

generation biofuel companies hope to produce hydrocarbon-like fuels. These molecules are chemically similar to those that already power planes, trains and automobiles. These “drop-in” fuels won’t absorb water like ethanol, nor are they corrosive, meaning they can be put directly into fuel tanks and pumped through pipelines, just like regular traditional oil-based fuels.

A Long Road Ahead

The 2007 Energy Security and Independence Act mandated that oil companies use 36 billion gallons of biofuels annually by 2022. Of that, 16 billion gallons are to be made from lighter environmentally footprinted advanced feedstocks such as cellulosic ethanol or algae. Globally, biofuel requirements call for at least 72 billion gallons by 2021.

According to the EPA, *no* commercial volumes of cellulosic ethanol are currently being produced. However, several startups and advances are currently under way that could turn the tide.

Ethanol giant POET recently broke ground on a [new \\$250 million facility](#) designed to use leftover corn stalks and cobs. Using enzymes, POET plans to produce about 25 million gallons of cellulosic ethanol per year and could be the first commercial plant in the country. Likewise, **DuPont** (NYSE:[DD](#)) will break ground on a similar facility later this year. There also have been a handful of strategic partnerships

between major oil firms and various cellulosic firms.

Given the potential promise of finally unlocking the “holy grail” of biofuels, investors might want to give some of the companies involved a go. While I wouldn’t sell my traditional hydrocarbon-based energy stocks just yet, these cellulosic players could provide a nice counterpoint to an oil & gas portfolio.

Interestingly enough, the two furthest along — **Codexis** (NASDAQ:[CDXS](#)) and **Amyris** (NASDAQ:[AMRS](#)) — have directly partnered with oil majors.

Codexis is hoping to use an enzyme-based technology that will make biofuels from wheat straw and sugar-cane bagasse. [Collaborating](#) with **Royal Dutch Shell** (NYSE:[RDS.A](#), [RDS.B](#)) and Brazil’s **Cosan** (NYSE:[CZZ](#)), the firm will build a plant capable of producing 105 million gallons of drop-in fuel every year.

Similarly, biotech company Amyris and French oil major **Total** (NYSE:[TOT](#)) are planning on using genetically engineered yeast to [crack the cellulose](#).

Both companies went public in 2010 and currently can be bought for well below their IPO prices — in fact, both CDXS and AMRS are near all-time lows. And while it might take a while to see real scale from their efforts, investors with longer timelines might want to consider the firms.

As of this writing, Aaron Levitt did not hold a position in any of the aforementioned securities.

Area Available For Best Management Cost Share Expanded

Loggers and landowners can both benefit from a new Missouri Department of Conservation (MDC) pilot cost share incentive program called the Best Management Practices (BMPs) Conservation Innovation Grant (CIG). The grants are focused on encouraging timber harvesters to use good practices that protect soil and water on private land timber sales in 57 counties across the state. The counties available for the cost share opportunity are shown on the map below.

Best Management Practices were developed as a guide for loggers and landowners to combine safe logging practices with steps that will avoid damage to water quality and soil erosion associated with timber harvesting. By taking steps to learn the BMPs and implement them, MDC hopes the CIG will encourage loggers and landowners to work together in maintaining the best possible forest health and productivity.

According to MDC Forest Program Supervisor, Jason Jensen, the grant is designed to be a partnership between loggers and landowners as they

do business together. If approved, the cost share directly pays loggers \$10 to \$20 per acre to use the BMPs and landowners receive \$5 per acre.

“The concept behind splitting the incentive is that the logger has the equipment to implement the BMPs and the responsibility for establishing erosion prevention measures and the landowner owns the property and is responsible for maintenance of the BMPs for a reasonable period of time,” Jensen said.

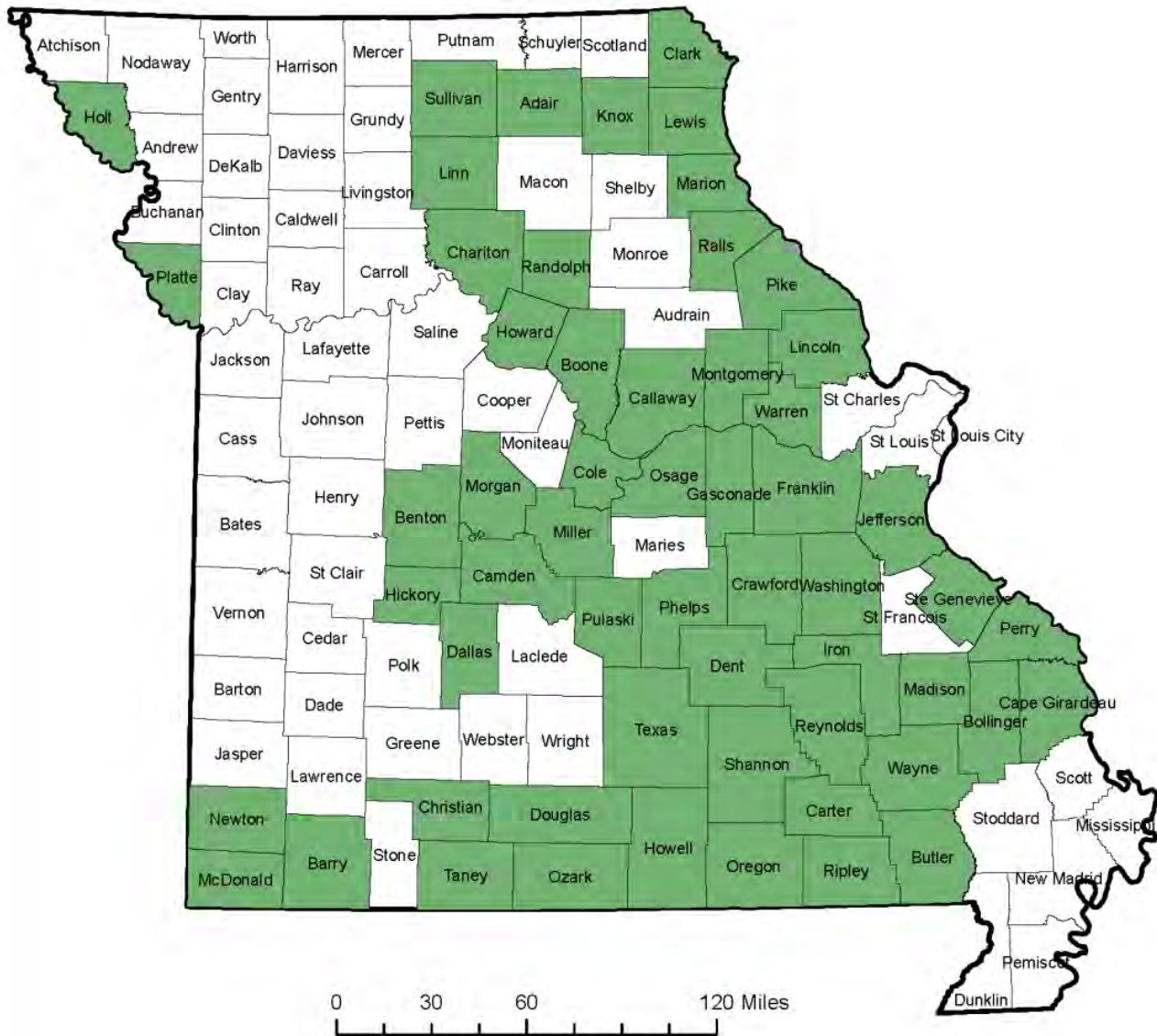
To participate, Jensen says loggers should sign up for the cost share program at their local MDC office. The program requires that the logger has been through the Professional Timber Harvester (PTH) course offered by the Missouri Forest Products Association or attend a BMP training class with the Department of Conservation.

To find a Department of Conservation office near you, go online to www.MissouriConservation.org

For a schedule of upcoming PTH training sessions go to www.moforest.org.

Missouri Timber Price Trends tracks market prices for Stumpage. Reports on the Stumpage Market are received from Missouri Department of Conservation Resource Foresters and private consulting foresters. Stumpage refers to timber sold on the stump and does not reflect delivered mill prices. These reports should serve as a general guide to track stumpage prices. Landowners should not use this report to replace a timber inventory and marketing assistance as methods of conducting a sale. Missouri Department of Conservation Resource Foresters will be able to provide information on current, local market conditions. Details of all private sales and delivered prices are kept confidential.

Counties Eligible for Forestry Best Management Practices Cost Share



Legend

Eligible Counties

Missouri Department of Conservation Forestry Division Offices

MDC CENTRAL OFFICE.....573/751-4115

PO Box 180, Jefferson City 65102
Lisa Allen, State Forester x 3120
Mike Hoffmann, Forest Management Chief x 3307
John Tuttle, Forest Management Chief x 3304

CENTRAL REGION573/815-7900

3500 E. Gans Rd., Columbia 65201
Susan Troxel-DeWitt, Regional Supervisor x 3478
CALIFORNIA OFFICE
410C W. Buchanan St., California 65018573/796-0286
CAMDENTON OFFICE
783 Thunder Mtn. Rd., Camdenton 65020573/346-2210
FULTON OFFICE – NRCS Office
4549 State Rd. H, Fulton 65251573/592-1400
LINN OFFICE - USDA Service Center
1315 E. Main St., Linn 65051573/897-3797
NEW FRANKLIN – MU-HARC Office
10 Research Ctr. Rd., New Franklin 65274660/848-2525

KANSAS CITY816/622-0900

12405 SE Ranson Rd, Lees Summit 64082
Mark Nelson, Regional Supervisor x 1239
BURR OAK WOODS NATURE CENTER
1401 NW Park Rd., Blue Springs 64015816/228-3766
CLINTON OFFICE
PO Box 368, Clinton 64735660/885-6981
DISCOVERY CENTER
4750 Troost, Kansas City 64110816/759-7300
SEDALIA OFFICE
2000 S. Limit, Sedalia 65301660/530-5500

NORTHEAST660/785-2420

3500 S. Baltimore, Kirksville 63501
Danny Hartwig, Regional Supervisor x 6516
HANNIBAL OFFICE
653 Clinic Rd., Hannibal 63401573/248-2530
KAHOKA OFFICE
RR 1 Box 16A, Kahoka 63445660/727-2955
MACON OFFICE – Mark Twain Water Quality
2108 US Hwy. 63 Suite D, Macon 63552660/385-6359
UNIONVILLE OFFICE
28988 US Hwy. 136, Unionville 63565660/947-2439

NORTHWEST816/271-3100

701 James McCarthy Dr., St. Joseph 64507
Bryan Gragg, Regional Supervisor x 1438
ALBANY OFFICE
508 E. Hwy. 136, Albany 64402660/726-3746
CHILLICOTHE OFFICE
15368 LIV 2386, Chillicothe 64601660/646-6122

OZARK417/256-7161

551 Joe Jones Blvd., West Plains 65775
Terry Truttmann, Regional Supervisor x 240
ALTON OFFICE
PO Box 181, Alton 65606417/778-6594
AVA OFFICE
HCR 71 Box 46, Ava 65608417/683-3628
DONIPHAN OFFICE
Route 8 Box 8118, Doniphan 63935573/996-2557
EMINENCE OFFICE
HCR 1 Box 177K, Eminence 65466573/226-3616

HOUSTON OFFICE
1020 Hwy 63 North, Houston 65483417/967-3385
ROLLA OFFICE
125655 State Route Y, Rolla 65401573/368-2225
SALEM OFFICE
PO Box 386, Salem 65560573/729-3182
VAN BUREN OFFICE
PO Box 850, Van Buren 63965573/323-8515

SOUTHEAST573/290-5730

2302 County Park Rd., Cape Girardeau 63701
Joe Garvey, Regional Supervisor x 245
ELLINGTON OFFICE
Route 2 Box 198, Ellington 63638573/663-7130
FARMINGTON OFFICE
812 Progress Dr., Farmington 63640573/756-6488
FREDERICKTOWN OFFICE
1051 Madison CR 212, Fredericktown 63645573/783-5468
IRONTON OFFICE
303 S. Main, Ironton 63650573/330-6550
MARBLE HILL OFFICE
Route 5 Box 129, Marble Hill 63764573/238-2321
NEW MADRID OFFICE
PO Box 131, New Madrid 63869573/748-5134
PERRYVILLE OFFICE
2206 W. St. Joseph, Perryville 63775573/547-4537
PIEDMONT OFFICE
Route 4 Box 1002, Piedmont 63957573/223-4525
POPLAR BLUFF OFFICE
107 Magazine Lane, Poplar Bluff 63901573/840-9788

SOUTHWEST417/895-6880

2630 N. Mayfair, Springfield 65803
Tim Stanton, Regional Supervisor x 1630
BOLIVAR OFFICE
412 S. Killingsworth, Bolivar 65613417/326-5189
BRANSON OFFICE
226 Claremont Dr., Branson 65616417/334-3324
CASSVILLE OFFICE
PO Box 607, Cassville 65625417/847-5949
JOPLIN OFFICE
705 S. Illinois, Ste. 6B Joplin 64801417/629-3423
LEBANON FORESTRY OFFICE
2350 S. Jefferson, Lebanon 65536417/532-7612
NEOSHO OFFICE
1510 S. US Hwy. 71, Neosho 64850417/451-4158

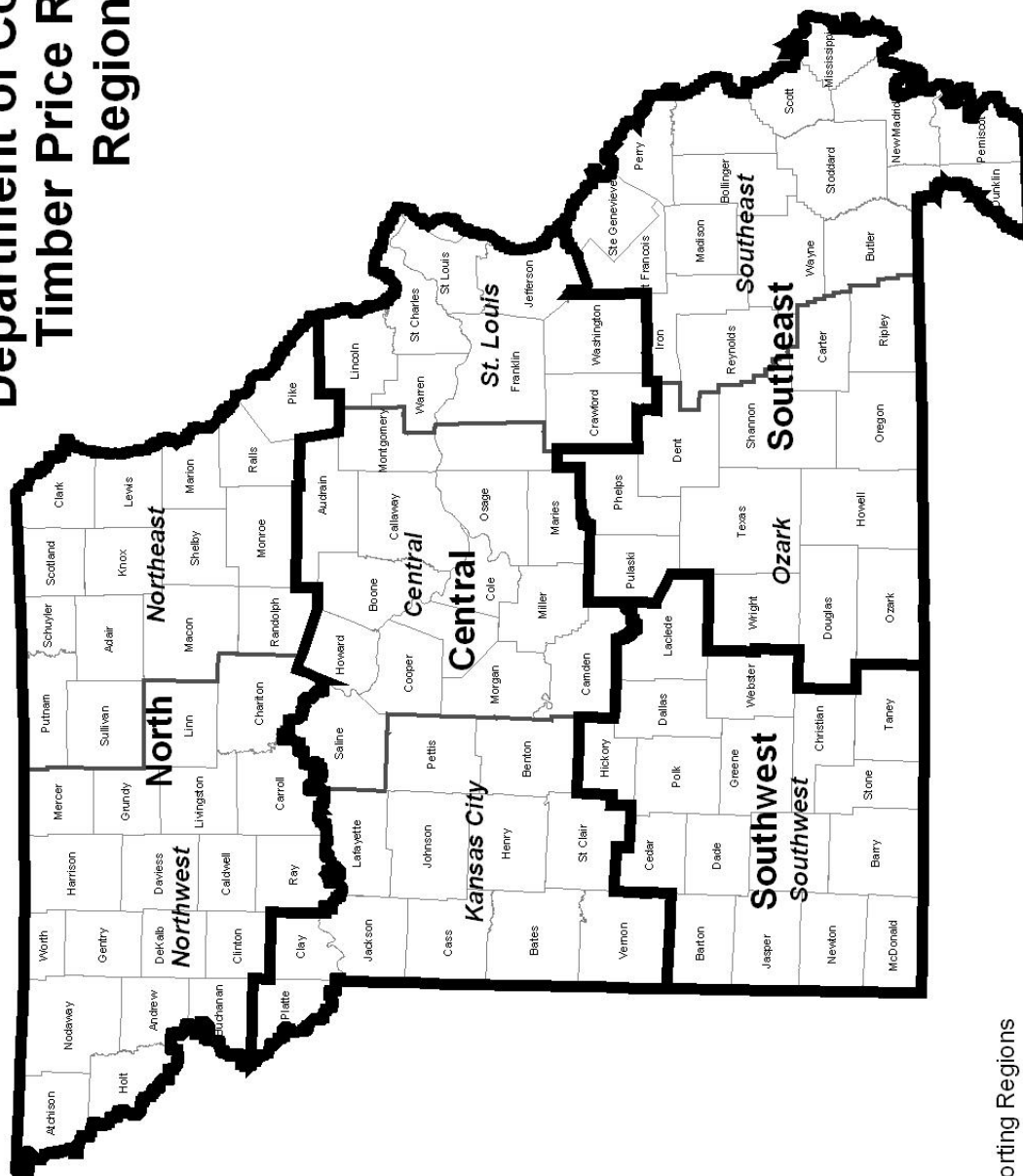
ST. LOUIS636/441-4554

2630 Hwy. D, St. Charles 63304
Cathy deJong, Regional Supervisor x 311
MERAMEC WORK STATION
3220 South Hwy 185, Sullivan 63080573/468-3335
POWDER VALLEY NATURE CENTER
11715 Cragwood Rd., Kirkwood 63122314/301-1500
ROCKWOODS OFFICE
2751 Glencoe Rd., Wildwood 63038636/458-2236
WARRENTON OFFICE
PO Box 157, Warrenton 63383636/456-3368

GEORGE O. WHITE NURSERY573/674-3229

14027 Shafer Rd., Licking 65542
Greg Hoss, Supervisor x222

Missouri Department of Conservation Timber Price Reporting Regions



- Legend**
- Price Reporting Regions
 - MDC Regions
 - County Boundaries

